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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,948	09/12/2000	Richard T. Antony	VGS-PA-1	6163
27510	7590	01/27/2005	EXAMINER	
KILPATRICK STOCKTON LLP 607 14TH STREET, N.W. WASHINGTON, DC 20005			DAY, HERNG DER	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/659,948	ANTONY, RICHARD T.
	<b>Examiner</b> Herng-der Day	<b>Art Unit</b> 2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 15 September 2004.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 21-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 21-30 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 15 September 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \*    c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 9/15/04.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This communication is in response to Applicant's Response ("Response") to Office Action dated April 29, 2004, mailed September 15, 2004.

1-1. Claims 1-20 have been cancelled. Claims 21-30 have been added. Claims 21-30 are pending.

1-2. Claims 21-30 have been examined and rejected.

***Information Disclosure Statement***

2. The information disclosure statement filed September 15, 2004, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

2-1. The document of Antony, Richard T., "Principles of Data Fusion Automation", Artech House, Inc., 1995, listed in the information disclosure statement filed September 15, 2004, fails to comply with 37 CFR 1.98(a)(2) because only a copy of the table of contents has been provided.

***Drawings***

3. The replacement sheets received on September 15, 2004 are not acceptable and are objected to for the following reasons. Applicant should carefully review all the drawings. A

proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.

- 3-1. Fig. 4 is inconsistent with the specification as described at page 7.
- 3-2. Fig. 6 is not legible.
- 3-3. Color (red) line has been mentioned but cannot be displayed in Fig. 8.
- 3-4. The upper right box in Fig. 22 contains strange characters.
- 3-5. The specification refers to Fig. 30(a) and Fig. 30(b) at page 32. However, no (a) or (b) has been labeled in Fig. 30.

***Abstract***

4. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

***Specification***

5. To have a consistent notation for all indexing cells, Applicant is required and agreed to provide a Substitute Specification when the application is allowed.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7-1. Claim 21 recites the limitation “for each remaining indexing cell type” in the last second line of the claim. It is unclear which remaining indexing cell type is referred to because only (boundary, boundary) indexing cell type has been recited.

7-2. Claim 21 recites the limitation “the specific Boolean operation” in line 16 of the claim. It is unclear which specific Boolean operation is referred to. For the purpose of claim examination, the Examiner will interpret “the specific Boolean operation” as “one of the Boolean operations of intersection or union” because only the Boolean operation of intersection or union has been disclosed in the specification.

7-3. Claim 26 recites the limitation “for each remaining indexing cell type” in the last third line of the claim. It is unclear which remaining indexing cell type is referred to because only (boundary, boundary) indexing cell type has been recited.

7-4. Claim 26 recites the limitation “the Boolean operation” in line 23 of the claim. It is unclear which Boolean operation is referred to. For the purpose of claim examination, the Examiner will interpret “the Boolean operation” as “one of the Boolean operations of intersection or union” because only the Boolean operation of intersection or union has been disclosed in the specification.

7-5. Claims 27-30 recite the limitation “The method of” in the first line of each claim. There is insufficient antecedent basis for this limitation in each dependent claim because the independent claim 26 claims a computer program product.

7-6. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 21-30 are rejected under 35 U.S.C. 101 because the inventions as disclosed in claims are directed to non-statutory subject matter.

9-1. Regarding claims 21-25, it is not tangibly embodied because it could be practiced with pencil and paper. Therefore, it is not in the technology arts.

9-2. Regarding claims 21-30, it appears to be directed to abstract ideas of performing Boolean operations without producing a concrete, useful, and tangible result.

***Applicant's Arguments***

10. Applicant argues the following:

10-1. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. §101

(1) "This rejection is moot in view of the cancellation of claims 1-20" (page 12, paragraph 3, Response).

(2) "reading the claims in view of the entire disclosure, the claims are directed to a method/algorithm that operates on a digital computer, therefore the claims are directed to a machine that produces a concrete, useful, and tangible result that meets the basis of 35 U.S.C. §101" (page 12, paragraph 4, Response).

**10-2. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. §112, FIRST PARAGRAPH**

(3) "This rejection is moot in view of the cancellation of claims 1-20" (page 13, paragraph 2, Response).

**10-3. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

(4) "This rejection is moot in view of the cancellation of claims 1-20" (page 14, paragraph 2, Response).

**10-4. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. §102(b)**

(5) "This rejection is moot in view of the cancellation of claims 1-20" (page 16, paragraph 2, Response).

**10-5. REJECTION OF CLAIMS 1-20 UNDER 35 U.S.C. §103(a)**

(6) "This rejection is moot in view of the cancellation of claims 1-20" (page 19, paragraph 2, Response).

***Response to Arguments***

**11.** Applicant's arguments have been fully considered.

**11-1.** Applicant's arguments (1) and (3)-(6) are persuasive. The rejections of claims 1-20 under 35 U.S.C. 101, 112, 102(b) and 103(a) in Office Action dated April 29, 2004, have been withdrawn.

**11-2.** Applicant's argument (2) is not persuasive. Instead of reading the claims in view of the disclosure Applicant attempts to read limitations from the specification into the claims.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean R. Homere can be reached on (571) 272-3780. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day *H.D.*  
January 13, 2005

JEAN P. MOMERE  
PRIMARY EXAMINER